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Sen. Vi Simpson  
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David Rector  
Gary Reding  
Alice Schloss  
Lynn Waters  
Arthur Smith, Jr.  
The Honorable Jim Trobaugh



## SEPTIC SYSTEMS SUBCOMMITTEE OF THE ENVIRONMENTAL QUALITY SERVICE COUNCIL

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Authority: P.L. 248-1996 (SEA 138)

### MEETING MINUTES<sup>1</sup>

Meeting Date: September 7, 2000  
Meeting Time: 1:30 P.M.  
Meeting Place: State House, 200 W. Washington  
St., Room 233  
Meeting City: Indianapolis, Indiana  
Meeting Number: 2

**Members Present:** Sen. Beverly Gard, Chairperson; Sen. Kent Adams; Sen. Vi Simpson; Sen. Glenn Howard; David Benshoof; Randy Edgemon; Marvin Gobles; Arthur Smith, Jr.; The Honorable Jim Trobaugh.

**Members Absent:** Rep. Ron Herrell; Rep. Dale Sturtz; Rep. David Wolkins.

Senator Beverly Gard, Chairperson of the EQSC Septic Systems Subcommittee

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<sup>1</sup> Exhibits and other materials referenced in these minutes can be inspected and copied in the Legislative Information Center in Room 230 of the State House in Indianapolis, Indiana. Requests for copies may be mailed to the Legislative Information Center, Legislative Services Agency, 200 West Washington Street, Indianapolis, IN 46204-2789. A fee of \$0.15 per page and mailing costs will be charged for copies. These minutes are also available on the Internet at the General Assembly homepage. The URL address of the General Assembly homepage is <http://www.ai.org/legislative/>. No fee is charged for viewing, downloading, or printing minutes from the Internet.

(Subcommittee), called the meeting to order at 1:35 p.m. Senator Gard stated the next three Subcommittee meetings would take place on September 28 at 10:00 a.m., October 19 at 10:00 a.m., and November 14 at 1:30 p.m.

The first person to testify was Don Jones, P.E., Professor and Extension Engineer from Purdue University (see Exhibit 1). Dr. Jones stated the following:

- \*Seventy-nine percent of soils in Indiana are not suitable for conventional septic systems under current regulations.
- \*Practical alternatives for Indiana septic systems include Effluent Filters, Constructed Subsurface Wetlands, Recirculation Media Filters, Aeration Treatment Units, Drip Irrigation, and Graveless Trenches.
- \*All new septic systems will be required to have Effluent Filters.
- \*Effluent Filters can be retrofitted into existing septic systems.
- \*Effluent Filters protect disposal fields but require routine maintenance.
- \*Constructed Subsurface Wetlands pretreat effluent before it reaches the soil system.
- \*Constructed Subsurface Wetlands are affected by the seasons, require regular maintenance and monitoring, work better for larger flows than for individual residences, and require a large land area.
- \*Recirculation Media Filters also pretreat effluent before it reaches the soil system and have been used in the United States for over 100 years mainly to treat drinking water.
- \*Recirculation Media Filters are used when conventional absorption fields fail, there are site restrictions such as high groundwater, shallow bedrock, or poor soils, there are concerns about Nitrogen in the groundwater, or centralized treatment is unavailable or too expensive.
- \*Aeration Treatment Units treat septic effluent and have been used for 25 years.
- \*Aeration Treatment Units are relatively inexpensive to install, but it can be expensive to operate the aerator, they require maintenance, and, in Indiana, the overflow from a Unit must go to an absorption area.
- \*A study in Wisconsin showed Aeration Treatment Units can be successful at restoring failing absorption systems.
- \*Drip Irrigation involves frequent application of small quantities of wastewater just below the soil surface.
- \*Drip Irrigation system advantages include slow and uniform distribution of effluent, ease of design and installation, placement in more biologically active soils, and they may be used on steep slopes.
- \*Drip Irrigation system disadvantages include the need to pretreat septic tank effluent, potential plugging problems, potential freezing problems, and higher operational costs.
- \*Training and Maintenance is not so critical for conventional systems, but complex systems that allow construction in restrictive soils must be maintained.
- \*Several alternative systems have been installed and are being evaluated at Purdue University's Throckmorton Farm.
- \*Technology acceptance should be based on performance standards.
- \*Incentives are needed to encourage needed repairs and strong maintenance programs.
- \*Better training of regulators, installers, soil scientists, pumpers and haulers, and engineers is needed.
- \*Fundamentally, septic systems in Indiana are a public health issue.

In response to questions, Dr. Jones stated the following:

\*Some studies show water softeners damage septic systems because of the sodium they add to clay soil. Indiana regulations, which should be reviewed, require water softener wastewater to go into the absorption field.

\*Septic systems should be maintained regularly and not just when they break.

\*The true design life of a septic system is approximately 10 to 12 years and not 20 years. Many people put up with a failed septic system by doing such things as taking their laundry to a laundromat.

\*Two national groups develop septic system performance standards.

\*Costs, based on a three bedroom home, can range from approximately \$3,500 for a conventional septic system, \$6,000 to \$7,000 for an Aeration Treatment Unit, \$6,000 to \$7,000 for a sand filter, and \$8,000 to \$10,000 for an elevated sand mound.

\*There are few cluster systems in Indiana, but they are common in other states. Costs for cluster systems can exceed \$17,000 per home and equal the approximate costs for a conventional sewer system.

The next person to testify was Linda Mauller from the Wells County Health Department (see Exhibit 2). Ms. Mauller stated the following concerning septic system permits:

\*In the permit process, involved parties include the landowner, realtors, the county health department, soil scientists, the installer, surveyors, and engineers.

\*A county health department is responsible for a small part of the process.

However, it is the function of the county health department to protect the homeowner and the public health by requiring that all parties involved comply with the law.

\*Soil evaluations can involve county health department staff, private soil scientists, or Indiana State Department of Health (ISDH) soil scientists.

\*Some counties require certified soil scientists to do soil evaluations.

\*It is advantageous for all involved parties, especially the installer, to be present during the soil evaluation.

\*Septic system design is governed by state statutes, state administrative rules, and local ordinances, which may be more stringent than state standards.

\*The homeowner may choose the type of system to be installed according to the state and local regulations.

\*Septic system installation must be done in compliance with the septic system permit and when the soil conditions are appropriate.

\*Proper septic system use and maintenance techniques include water conservation, pumping septic tanks when needed, keeping certain items from being disposed of "down the drain," protecting the septic system area from compaction and damage, and protecting the septic system area from surface water drainage.

\*Educating septic system owners is the key to extending the life of septic systems and making systems perform better in poor soils.

\*Every septic system must have an absorption field that has not failed.

\*A system that refuses to accept sewage at the design rate is in failure.

\*A failed septic system is a public health hazard.

In response to questions, Ms. Mauller stated the following:

\*The septic system permit process, installation process, and septic system operation could be improved by such things as requiring soil scientists to be certified, greater use of septic system installer registries, and required maintenance.

\*More certification at every level of the permit and installation process, including

certification of local health department personnel, would improve the situation in Indiana. However, if government employees are required to meet higher standards, they are going to have to be paid higher wages to compete with the private sector.

- \*Septic system permits are issued for the construction of new septic systems at new homes and not when homes are sold with existing septic systems.

- \*Inspections of existing septic systems are usually only performed by a county health department after a signed complaint has been filed.

- \*Septic system permits are issued by the county based on the soil report and the proposed system's ability to comply with septic system regulations.

- \*The more information that can be distributed to homeowners, including such things as more brochures from the ISDH, would improve septic system operation and maintenance in Indiana.

The next person to testify was Mike Leppert from the Indiana Utility Regulatory Commission (IURC) (see Exhibit 3). Mr. Leppert stated the following concerning the IURC's role in regulating septic systems:

- \*The IURC only regulates about 70 sewer utilities.

- \*The IURC has only dealt with three septic cluster systems. Two have not yet been approved by the IURC.

- \*One cluster system, the Fox Chase Farms Utility, Inc., was certified on August 30, 1995. On May 10, 2000, the Indiana Office of Utility Consumer Counselor filed a complaint against the Fox Chase utility alleging that it "has operated its sewage disposal service in an unreasonable, insufficient, unsanitary and negligent manner." The Fox Chase case is ongoing.

- \*Even a relatively small cluster system or other type of septic system can fall under the definition of a utility and be subject to IURC approval and jurisdiction.

- \*The IURC has proposed legislation in the past that would allow for alternative utility regulation. However, the legislation has not passed.

- \*The IURC is concerned with the financial aspects of septic system utility operation while the ISDH and the Indiana Department of Environmental Management are concerned with the environmental and health aspects of septic system utility operation.

The next person to testify was Dan Novreske, Deputy Director of the State Budget Agency (see Exhibit 4). Mr. Novreske stated the following:

- \*The Wastewater State Revolving Fund (WWSRF) is used to make low interest loans to political subdivisions from bond proceeds secured by federal capitalization grants and loan repayments. The WWSRF does not include state money.

- \*Political subdivisions can use WWSRF loans to plan, design, construct, renovate, improve, and expand wastewater collection and treatment systems and all other activities allowed by the federal Clean Water Act.

- \*The Supplemental Wastewater Assistance Fund (SWAF) is used to make grants and low interest loans to political subdivisions from state appropriations.

- \*Political subdivisions can use SWAF grants and loans to plan, design, construct, renovate, improve, and expand wastewater collection and treatment systems, whether or not the costs are allowed by the federal Clean Water Act.

- \*The SWAF received \$40,000,000 from the Build Indiana Fund for fiscal year 2000-2001.

- \*Since funds for the WWSRF and SWAF are limited, the State Budget Agency attempts to get "the biggest bang for the buck" when making grants and loans.

- \*Money from the WWSRF is used to address environmental problems and is not used as a tool for economic development.

The next person to testify was Courtney Tobin from the Indiana Development Finance Authority (IDFA). Ms. Tobin stated the following:

- \*Tax exempt bond financing could be used to address some septic system problems.

- \*IDFA administers Indiana's State Private Activity Bond Ceiling, also referred to as "Volume Cap".

- \*Certain 501(c)(12) not-for-profit wastewater and drinking water companies may apply to IDFA for Volume Cap and are evaluated based upon the number and types of existing property owners who will be served by a project.

- \*Federal law establishes a limit on the amount of tax-exempt private activity bonds that may be issued within a state in a calendar year. This limit is currently set at \$50 per capita, but may be increased to \$65.

Senator Gard adjourned the meeting at 3:49 p.m.